Contribution ID: **59**   Type: **WG5 - Characterization techniques - facilities**

Running Your Test Beam with Constellation

Friday 6 June 2025 09:05 (15 minutes)

The qualification of new detectors in test beam environments presents a challenging setting that requires stable operation of diverse devices, often employing multiple data acquisition (DAQ) systems running on several machines in a local network. Changes to these setups are frequent, such as using different reference detectors depending on the facility. Managing this complexity necessitates a system capable of controlling the data taking, monitoring the experimental setup, facilitating seamless configuration, and easy integration of new devices.

Constellation is a flexible control and data acquisition framework developed with the requirements of laboratory and test beam environments in mind. Besides the possibilities for control and monitoring of the setup, Constellation also offers data transmission over the network, which is useful for embedded DAQ systems such as Caribou.

This contribution will present an overview of Constellation and detail its deployment in a typical test beam situation.

Type of presentation (in-person/online)

in-person presentation

Type of presentation (I. scientific results or II. project proposal)

I. Presentation on scientific results

Authors: SPANNAGEL, Simon (Deutsches Elektronen-Synchrotron (DE)); LACHNIT, Stephan (Deutsches Elektronen-Synchrotron (DE))

Presenter: LACHNIT, Stephan (Deutsches Elektronen-Synchrotron (DE))

Session Classification: WG5 - Characterization techniques, facilities